



#7A  
3/28/03  
amr

DOCKET NO: VSEA 009-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Joseph C. Olson et al.  
Serial No: 09/826,274  
Confirmation No: 2953  
Filed: April 4, 2001  
For: CATHODE ASSEMBLY FOR INDIRECTLY HEATED  
CATHODE ION SOURCE  
Examiner: Dalei Dong  
Art Unit: 2875

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with ~~the~~ first-class postage attached, addressed to Commissioner for Patents, Washington, D.C. 20231, on the 12 day of March, 2003.

*Mark Superko*

Mark Superko

Commissioner for Patents  
Washington, D.C. 20231

Sir:

AMENDMENT

In response to the Office Action mailed September 12, 2002, please amend the above-identified application as follows.

In the Claims

Please amend claims 9-13, 15, 16 and 18 to read as follows. Marked-up copies of the amended claims, with changes indicated by bracketing and underlining, are enclosed.

9. (As amended) A cathode sub-assembly for use in an indirectly heated cathode ion source which includes an arc chamber housing that defines an arc chamber, comprising:

a cathode sub-assembly, including a cathode and a support rod fixedly mounted thereto;

a filament for emitting electrons, that is positioned outside the arc chamber in close proximity to the support rod of the cathode sub-assembly; and

a cathode insulator for electrically and thermally isolating the cathode from an arc chamber housing, that is disposed around the cathode of the cathode sub-assembly.

03/21/2003 RHEKONEN 00000054 500896 09826274

01 FC:1201

168.00 CH

RECEIVED  
MAR 26 2003  
TC 2800 MAIL ROOM